WHAT IS CLAIMED IS:

1. A flat heat pipe having a vacuum chamber which is provided with an evaporator in contact with a heating element, and a condenser connected to a cooling device, said vacuum chamber being provided in a hollow interior with a wick structure, and a predetermined amount of a working fluid by which an evaporation-condensation cycle is effected; wherein said vacuum chamber is provided in the hollow interior with a plurality of heat conduction pillars whereby said heat conduction pillars are in contact with an upper wall and a lower wall of the hollow interior of said vacuum chamber, said heat conduction pillars serving to conduct a heat energy from the evaporator to the condenser.

2. The flat heat pipe as defined in claim 1, wherein said heat conduction pillars are distributed in an evaporation area or hot spots and are various in size and shape.

3. The flat heat pipe as defined in claim 1, wherein said heat conduction pillars are made of a material having a high thermal conductivity.

4. The flat heat pipe as defined in claim 1, wherein said heat conduction pillars are provided with a plurality of wick structures whereby said wick structures serve to enhance the evaporation-condensation cycle.

5. The flat heat pipe as defined in claim 4, wherein said wick structures are of a porous medium made of a sintered metal

powder whereby said wick structures serve to enhance the evaporation-condensation cycle.

6. The flat heat pipe as defined in claim 4, wherein said wick structures are made of a mesh or a metal spring whereby said wick structures serve to enhance the evaporation-condensation cycle.

7. The flat heat pipe as defined in claim 4, wherein said wick structures take a grooved or porous form by the heat conduction pillars itself around whereby said wick structures serve to enhance the evaporation-condensation cycle.